

Composite Wind Blade Development, Testing, & R&D at the University of Maine

Dr. Robert Lindyberg, P.E.
Assistant Director for Boatbuilding and Marine Composites
The AEW Center at the University of Maine
(207) 581-1465
rlindy@maine.edu

Summary:

Over the past two years, the AEW Center at the University of Maine has undertaken a new R&D initiative focused on the development and testing of new composite wind blade technology. Ultimately, this initiative will lead to the growth of Maine's Composite Materials Technology (CMT) sector, and the creation of new composites jobs. Supported by the North Star Alliance Initiative (NSAI) R&D Pillar, the objectives of this initiative are:

1. Improve performance and durability of composite wind blades and nacelles.
2. Reduce blade costs through the development of improved manufacturing technology.
3. Create jobs in Maine's CMT sector by creating opportunities for existing Maine composites companies to manufacture wind energy components, and by attracting new manufacturers to Maine.

Progress to date on this initiative includes the following: (1) The AEW Center has partnered with and is supporting the efforts of a new company – US Windblades – who are developing new composite manufacturing technology for replacement (7.9 meter) windblades. Located in Bath, US Windblades recently received an MTI Development Award, and will be testing their new windblades at the AEW Center in early/mid 2008. (2) The AEW Center is currently performing contract testing and development of composite components for windpower companies outside of the state of Maine, and (3) The AEW Center is working to attract Vestas (www.vestas.com), the world's leading supplier of windpower solutions, to establish an R&D facility in Maine (see attached article).

Conclusions/Recommended Public Policy:

1. Research efforts between the University of Maine and Maine composites companies have found that Maine could be a world-leader in the research, development, and manufacture of composite windpower components.
2. The Governor, legislature, and industry should strongly voice their support for windpower research initiatives, including the initiative to grow Maine's composites industry through the development of new composite windpower components.
3. Maine state government and local governments should develop policy that will provide incentives for existing composites companies to expand to manufacture new windpower components.
4. Maine state government and local governments should develop policy that will provide incentives to attract new windpower technology manufacturers to Maine.

NEWS

News Archive

WIND ENERGY GIANT VESTAS TO ESTABLISH
R&D CENTRE IN THE US

(2007.11.23)

Denmark's Vestas Wind Systems has announced its intention to establish a new R&D centre in the USA, and hints at locating it close to a major university.

Denmark's Vestas Wind Systems, the world's leading wind turbine manufacturer, announced yesterday in a press release its intention to establish a new research and development centre in the USA. The new centre, which will be operational from 2009 and employ up to 80 people, is being established as part of the company's ambition to extend its leading position in wind energy.

Vestas has not yet decided where the US centre will be located, but hints that it is primarily looking at options close to major universities with strong reputations. Finn Strøm Madsen, president of Vestas Technology R&D, says that it is crucial for Vestas to attract the best talent globally and collaborate with world-leading universities. "Being located close to a university will therefore be our first priority," he says.

The announcement of the new R&D centre follows Vestas' decision in March this year to build a turbine blade factory in Windsor, Colorado. The facility is currently under construction and is scheduled to come on stream in early 2008. In response to the call for large-scale public investments in sustainable energy, the wind energy sector is seeing strong growth in North America. During 2006 wind power capacity in the US alone increased by more than 30% to 12,000 MW.

Vestas Wind Systems is headquartered in Randers, Jutland, and employs over 13,500 people worldwide. The company has installed more than 33,500 wind turbines in 63 countries across five continents, and is now installing a new turbine every 5 hours. Vestas has production facilities in Denmark, Germany, China, India, Italy, UK, Spain, Sweden, Norway and Australia and is constructing a turbine blade factory in Colorado, USA. In 2006, Vestas Wind Systems generated revenues of DKK 28.7 bn (USD 5.1 bn).

Link > Vestas Wind Systems

More news 2007.11.23
Tip a friend

last updated: 2007.11.22

© Ministry of Foreign Affairs of Denmark | About www.investindk.com

Top | Print | Disclaimer

NEWS

> Siemens to supply wind turbines for offshore wind farm in Denmark (2008.01.02)

> US energy firm places an order for 55 wind turbines with Vestas (2007.12.27)

